

What is claimed is:

1 1(currently amended). A system comprising:

2 a component subject to expansion and contraction as a function of
3 temperature, the component comprising a material having a predetermined
4 thermal expansion characteristic over a temperature range;

5 a temperature sensor thermally responsive to the component for sensing
6 a current temperature of the component, wherein the temperature sensor is one
7 of affixable to and integral with the component;

8 a temperature expansion indicator providing a visual indication of
9 temperature versus distance from a reference point on the component to a point
10 along a range of distances from the reference point, said point corresponding to
11 an extent of expansion and contraction of the component according to said
12 thermal expansion characteristic at a given current temperature of the
13 component; **and,**

14 **wherein the temperature sensor provides a visual indication of the**
15 **current temperature sensed by the temperature sensor by identifying a**
16 **temperature indicating point corresponding to the current temperature on**
17 **a scale of temperatures versus distances, and wherein said expansion**
18 **and contraction of the component according to said thermal expansion**
19 **characteristic substantially correspond spatially, at the current**
20 **temperature, to a location of the temperature indicating point along said**
21 **scale of temperatures versus distances.**

1 2(currently amended). The system of claim 1, wherein the temperature
2 sensor **comprises an indicator having spaced areas that are activated to**
3 **identify the current temperature and is referenced to a distance**
4 **corresponding to said expansion and contraction as a function of**
5 **temperature.** ~~and the expansion indicator are integrated with the component,~~
6 ~~such that the temperature sensor provides a visual indication of the current~~
7 ~~temperature sensed by the temperature sensor in a temperature range, and a~~

~~distance scale provides an expansion of said component relative to the
reference point, in the temperature range.~~

3(currently amended). The system of claim 1, wherein the
temperature sensor comprises an indicator ~~with an indicated position~~ that
moves accordingly to identify the current temperature and is referenced to a
distance corresponding to said expansion and contraction as a function of
temperature.

4(currently amended). **A system comprising:** ~~The system of claim~~
~~2,~~
**a component subject to expansion and contraction as a function of
temperature, the component comprising a material having a
predetermined thermal expansion characteristic over a temperature
range;**
**a temperature sensor thermally responsive to the component for
sensing a current temperature of the component, wherein the temperature
sensor is one of affixable to and integral with the component;**
**a temperature expansion indicator providing a visual indication of
temperature versus distance from a reference point on the component to
a point along a range of distances from the reference point, said point
corresponding to an extent of expansion and contraction of the
component according to said thermal expansion characteristic at a given
current temperature of the component;**
**wherein the temperature sensor and the expansion indicator are
integrated with the component, such that the temperature sensor provides
a visual indication of the current temperature sensed by the temperature
sensor in a temperature range, and a distance scale provides an
expansion indication of said component relative to the reference point, in
the temperature range; and,**

22 wherein the temperature sensor comprises a plurality of indicator zones
23 that are respectively visually activated at threshold temperatures, and wherein
24 the indicator zones are spaced according to the thermal expansion
25 characteristic.

Claim 5 is canceled, without prejudice.

1 6(currently amended). **A system comprising:** ~~The system of claim 5,~~
2 **a component subject to expansion and contraction as a function of**
3 **temperature, the component comprising a material having a**
4 **predetermined thermal expansion characteristic over a temperature**
5 **range;**
6 **a temperature sensor thermally responsive to the component for**
7 **sensing a current temperature of the component, wherein the temperature**
8 **sensor is one of affixable to and integral with the component;**
9 **a temperature expansion indicator providing a visual indication of**
10 **temperature versus distance from a reference point on the component to**
11 **a point along a range of distances from the reference point, said point**
12 **corresponding to an extent of expansion and contraction of the**
13 **component according to said thermal expansion characteristic at a given**
14 **current temperature of the component;**
15 **wherein the temperature sensor provides a temperature readout of**
16 **the current temperature of the component and a distance scale provides a**
17 **pattern of distance versus temperature according to said thermal**
18 **expansion characteristic, and wherein the current temperature is**
19 **referenced to a point on the distance scale; and,**

1 wherein the readout is connected to a corresponding point on the
2 distance scale by graphic indicia.

1 7(currently amended). **A system comprising:** ~~The system of claim~~

2 ~~2,~~

3 **a component subject to expansion and contraction as a function of**
4 **temperature, the component comprising a material having a**
5 **predetermined thermal expansion characteristic over a temperature**
6 **range;**

7 **a temperature sensor thermally responsive to the component for**
8 **sensing a current temperature of the component, wherein the temperature**
9 **sensor is one of affixable to and integral with the component;**

10 **a temperature expansion indicator providing a visual indication of**
11 **temperature versus distance from a reference point on the component to**
12 **a point along a range of distances from the reference point, said point**
13 **corresponding to an extent of expansion and contraction of the**
14 **component according to said thermal expansion characteristic at a given**
15 **current temperature of the component;**

16 **wherein the temperature sensor and the expansion indicator are**
17 **integrated with the component, such that the temperature sensor provides**
18 **a visual indication of the current temperature sensed by the temperature**
19 **sensor in a temperature range, and a distance scale provides an**
20 **expansion indication of said component relative to the reference point, in**
21 **the temperature range; and,**

22 wherein the **visual indication comprises a** readout **including** ~~includes~~
23 a numeric indicia by which the current temperature is referenced to a
24 corresponding point on the distance scale.

1 8(original). The system of claim 4, wherein the temperature indicator
2 zones comprise thermally responsive visually changeable media.

1 9(original). The system of claim 8, comprising a liquid crystal
2 temperature responsive indicator strip mountable along the range of distances

3 from the reference point and having said indicator zones spaced thereon
4 according to the thermal expansion characteristic.

1 10(original). The system of claim 8, wherein the component is a siding
2 panel comprising a polymer, the reference point is a reference position on the
3 panel for receiving a fastener, and the range of distances is placed for
4 comparison between an edge of the panel and an edge of butt jointed adjacent
5 panel, whereby the indicator zones determine a gap dimension between the
6 panel and the adjacent panel at the current temperature.

1 11(original). The system of claim 2, wherein the temperature sensor
2 comprises a plurality of indicator zones that are spaced according to the
3 thermal expansion characteristic and comprise thermally responsive visually
4 changeable media operable to indicate the current temperature by identifying a
5 point representing a corresponding expansion along the distance scale.

1 12(original). The system of claim 11, wherein the component is a siding
2 panel comprising a polymer, wherein the reference point is a reference position
3 or the panel for receiving a fastener for mounting the panel; and the range of
4 distances is placed for comparison between an edge of the panel and an edge
5 of butt jointed adjacent panel, whereby the indicator zones determine a gap
6 dimension between the panel and the adjacent panel at the current
7 temperature.

1 13(original). The system of claim 10, wherein the temperature sensor is
2 referenced to a positioning reference point adjacent to the edge of the panel.

1 14(original). The system of claim 12, wherein the temperature sensor is
2 one of adhesively affixed to the panel temporarily, adhesively affixed to the
3 panel permanently and integrally formed in the panel.

Claims 15-21 are canceled, without prejudice (non-elected).

1 22(currently amended, withdrawn). An article of manufacture
2 comprising: a siding panel, a temperature sensor, and an array of spacing
3 indicators, wherein the spacing indicators correspond to a position of a point on
4 the siding panel at a distance from a remote reference point, which distance
5 changes with thermal expansion and contraction of the panel, and wherein the
6 spacing indicators are configured for a thermal expansion characteristic of the
7 siding panel at temperatures determined by the temperature sensor, wherein
8 the temperature sensor provides a visual indication of a current
9 temperature sensed by the temperature sensor by identifying a
10 temperature indicating point corresponding to the current temperature on
11 a scale of temperatures versus distances, and wherein said expansion
12 and contraction of the panel according to said thermal expansion
13 characteristic substantially correspond spatially, at the current
14 temperature, to a location of the temperature indicating point along said
15 scale of temperatures versus distances..

1 23(withdrawn). The article of claim 22, wherein the temperature
2 sensor and the array of spacing indicators both are one of integral with the
3 siding panel and affixed to the siding panel.

1 24(withdrawn). The article of claim 23, wherein the temperature
2 sensor has at least two temperature indication points, and wherein the
3 temperature indication points are associated by graphic marking with said array
4 of spacing indicators.

1 25(withdrawn). The article of claim 23, wherein the temperature
2 sensor has at least two temperature indication points that are spaced to
3 correspond to the thermal expansion characteristic over a difference between at
4 least two temperatures identified by said at least two temperature indication

5 points, such that the temperature indication points provide said array of spacing
6 indicators.

1 26(withdrawn). The article of claim 23, wherein the temperature
2 sensor and the array of spacing indicators are at different positions spaced
3 apart on said panel.

1 27(withdrawn). The article of claim 26, wherein the temperature
2 sensor is placed at one end of the panel and the array of spacing indicators are
3 placed at an opposite end of the panel, whereby a gap at a joint between two
4 identical said panels can be set by reference to the temperature sensor of one
5 of said panels and the array of spacing indicators of the other of said panels.

1 28(currently amended). A temperature indicator for a siding panel,
2 comprising:

3 a temperature sensor operable to determine a current panel temperature
4 independently of ambient temperature; and,

5 a graphic scale on the siding panel illustrating a corresponding effect of
6 thermal expansion over differences in temperature, the current panel
7 temperature being identifiable as a position on the graphic scale, wherein the
8 graphic scale is placed and configured to show how closely an edge of the
9 panel can be placed to an adjacent surface **of an adjacent panel**, while
10 avoiding interference over a range of thermal expansion temperatures.